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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,247	07/26/2002	Astrid Kleen	H 3609 PCT/US	9303

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EXAMINER	
ELHILO, EISA B	

ART UNIT	PAPER NUMBER
1751	

DATE MAILED: 03/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/088,247	KLEEN ET AL.	
	Examiner	Art Unit	
	Eisa B Elhilo	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 July 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *34-36* is/are allowed.

6)☒ Claim(s) *18-28 and 30-33* is/are rejected.

7)☒ Claim(s) *29* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/15/02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claims 18-36 are pending in this application.

DETAILED ACTION

1 This action is responsive to the preliminary amendment filed on July 26, 2002.

Claim Rejections - 35 USC § 103

2 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 18, 20-25 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernard et al. (US 6,274,364 B1).

Bernard (US' 364 B1) teaches a composition formulated as dyeing or setting lotions for hair (see col. 8, lines 15-21). The composition comprises a colorant, a transglutaminase enzyme (see col. 6, lines 52-60 and col. 8, line 54) and at least one substance having substrate activity for the enzyme such as protein hydrolyzates, amino acid and plant extract (see col. 9, lines 17-22), active substance having substrate activity on the carbonyl group of a glutamine residue and of the amino group of a lysine residue (see col. 6, lines 55-57) and casein (see col. 13, line 30).

Although Bernard et al, (US' 364) teaches a hair dyeing composition comprising colorants, transglutaminase enzymes and substance having substrate activity such as protein hydrolyze and casein, the reference does not require such a treating composition with sufficient specificity to constitute anticipation.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply such a composition to the keratin fibers by using such a method,

because such a composition that comprises colorants, transglutaminase enzymes and substance having substrate activity of protein hydrolyze falls within the scope of those taught by Bernard et al. Therefore, one of ordinary skill in the art would have had a reasonable expectation of success, because such a composition is expressly suggested by Bernard et al disclosure and therefore is an obvious formulation.

Claims 19, 26-28 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernard et al. (US 6,274,364 B1) in view of McDevitt et al. (US 6,051,033).

The disclosure of Bernard (US' 364 B1) as summarized above, teaches a hair treating composition comprising calcium –dependent transglutaminase enzymes and substance having substrate activity of protein hydrolyze. Bernard et al., does not teach or disclose calcium-independent transglutaminase enzymes as claimed. Bernard et al, also does not teach that the composition can be applied to the hair simultaneously or successively for a limited time after the hair pretreated with a pretreatment of oxidizing agent as claimed.

McDevitt (US' 033) in analogous art of hair treating formulations, teaches a method for treating wool fibers or animal hair comprising applying to the hair an aqueous solution that comprises a proteolytic enzyme and a transglutaminase which includes both calcium-dependent and calcium-independent transglutaminase (see col. 2, lines 24-28 and col. 7, lines 26-30), and, thus, McDevitt et al, clearly teaches the equivalency between calcium –dependent transglutaminase and calcium –independent transglutaminase which are both used in the same utility. It is also taught by McDevitt et al., that the enzymatic treatments can take place either as stand-alone steps or in combination with other treatments wherein the animal hair material is subjected to treatment with a transglutaminase either subsequent to or preferably simultaneously

with a proteolytic enzyme treatment and wherein the enzymatic treatment steps are preferably carried out for a duration of at least 1 minute and less than 150 minutes (see col. 5, lines 13-28). It is further taught by McDevitt et al., that the animal hair may have undergone an oxidative pre-treatment prior to any of the enzymatic treatment wherein the oxidative pre-treatment includes an oxidizing agent such as sodium hypochlorite as well as enzymatic treatments using oxidoreductase enzymes (see col. 3, lines 7-13). It is furthermore taught by McDevitt et al., that the method provides advantages with regard to improved shrink-resistance, and/or improvements of softness and handle are highly desired by the end-user, while minimizing fiber damage relative to existing degradative treatments of wool and other animal hair materials (see col. 2, lines 15-22).

Therefore, in view of teaching of the secondary reference of McDevitt et al., one having ordinary skill in the art would be motivated to modify the composition of Bernard by replacing the calcium –dependent transglutaminase with the calcium –independent transglutaminase as taught by McDevitt and to utilize such a method to apply to the hair the enzymatic composition simultaneously or successively for limited time with a pretreatment of oxidative step. Such modification would be obvious because one would expect that the use of calcium –independent transglutaminase simultaneously or successively for limited time as taught by McDevitt would similarly useful and applicable to the analogous treating composition taught by the primary reference of Bernard et al.

Allowable Subject Matter

6 Claim 29 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and

any intervening claims. The prior art of record do not teach or disclose a process for coloring keratin fibers comprising applying to the keratin fibers a pretreatment agent comprising a reducing agent as claimed.

7 Claims 34-36 are allowed because the prior art do not teach or disclose a multi-park kit for coloring keratin fibers comprising coloring composition, enzyme having trasglutaminase activity and active substance with substrate activity for the enzyme as claimed.

Conclusion

8 The references listed on from 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the rejection above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eisa B Elhilo whose telephone number is (571) 272-1315. The examiner can normally be reached on M - F (8:00 -5:30) with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eisa Elhilo
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March 1, 2004

Brian P. Mruk
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